

# FW3510

## FW3510/FW3410 & FW3110 FIFTH WHEEL OPERATING MANUAL



### **WARNING**

You must read and understand the instructions in this manual before operating your fifth wheel.

Failure to follow all of the important operating procedures contained in these instructions may result in a hazardous condition or cause a hazardous condition to develop.

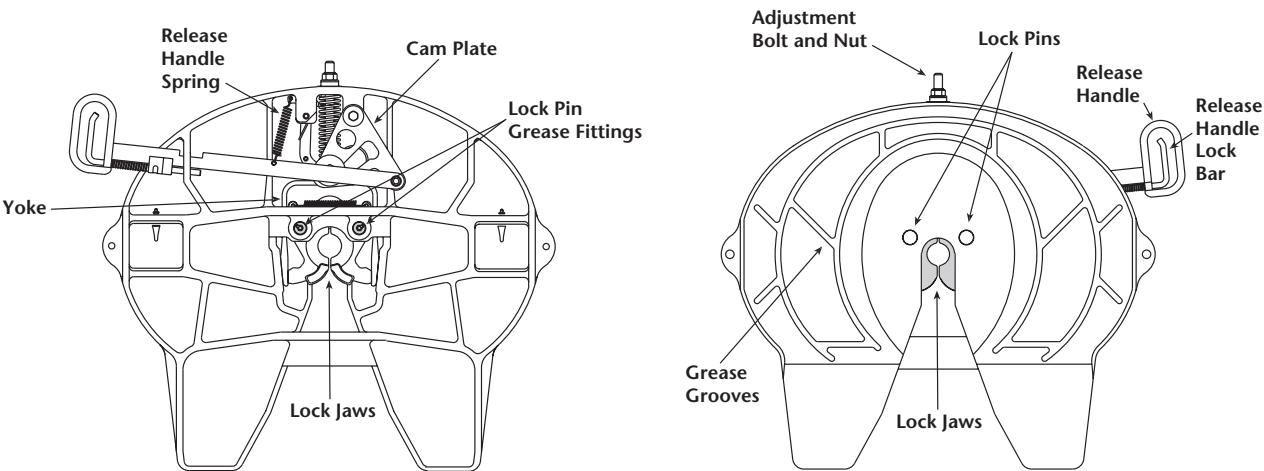
These instructions apply to the proper operation of your fifth wheel only. There are other important checks, inspections, and procedures not listed here that are necessary, prudent, and/or required by law.

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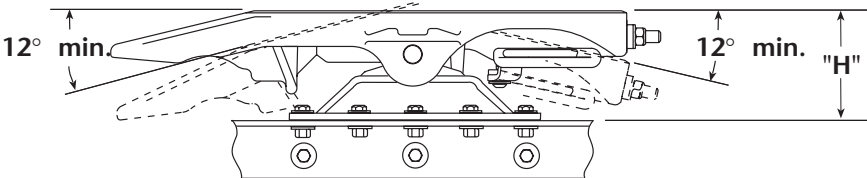
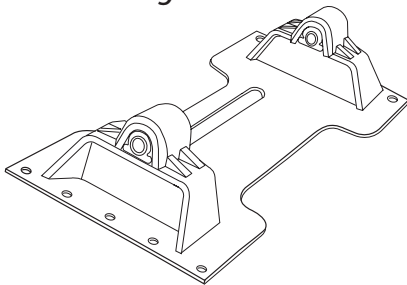
# 1. Component Part Identification and Specifications

## 1.1 Identification of Component Parts (Standard Greased FW3510 Shown)



## 1.2 Important Specifications

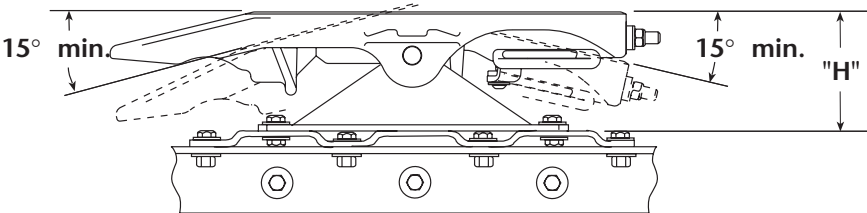
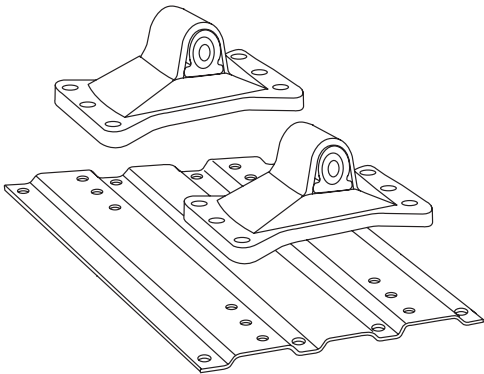
### “Weightsaver” Mounting Bracket



Fifth Wheel Model No. **	D-Value	Max. Vertical Load	Fifth Wheel Height* "H"
FW3510-140	150 kN	20 tonne	140 mm
FW3510-160	150 kN	20 tonne	160 mm
FW3510-190	150 kN	20 tonne	190 mm
FW3510-230	150 kN	20 tonne	230 mm

\* Fifth Wheel Height "H" Does Not Include Mounting Plate Thickness.  
\*\* For the low lube version replace the "35" with "34" (i.e. FW3410-150);  
for the no lube version replace the "35" with "31" (i.e. FW3110-150).

### “ISO/DIN” Mounting Bracket



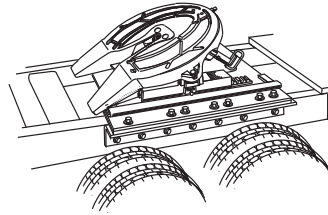
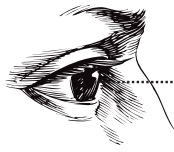
Fifth Wheel Model No. **	D-Value	Max. Vertical Load	Fifth Wheel Height* "H"
FW3510-150	150 kN	20 tonne	150 mm
FW3510-180	150 kN	20 tonne	180 mm
FW3510-200	150 kN	20 tonne	200 mm

\* Fifth Wheel Height "H" Does Not Include Mounting Plate Thickness.  
\*\* For the low lube version replace the "35" with "34" (i.e. FW3410-150);  
for the no lube version replace the "35" with "31" (i.e. FW3110-150).

## 2. Operating Instructions

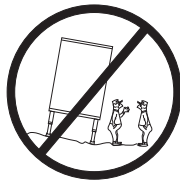
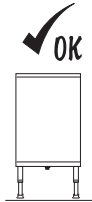
### 2.1 Pre-service Inspection

- 1 Inspect the fifth wheel mounting.

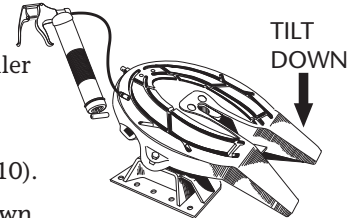


- Tighten loose fasteners
- Replace missing fasteners
- Repair/replace cracked components

- 2 Make sure the coupling area is flat, level and clear of obstacles and persons



- 3 Lubricate the fifth wheel-to-trailer contact surface with grease (not required for the FW3310 & FW3110).  
Tilt the ramps down.

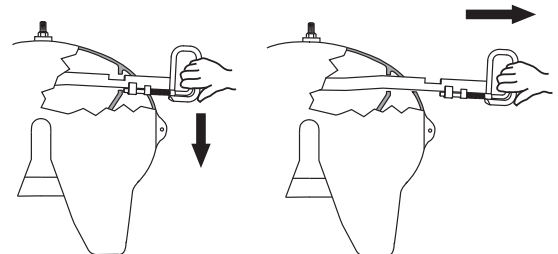


- 4 Make sure the locks are open.



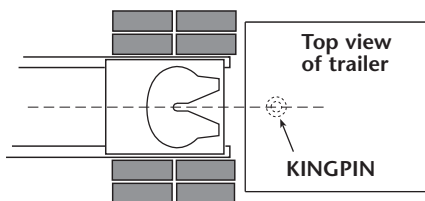
If the locks are closed:

- Grip handle;
- Pull "trigger";
- Slide back/left (to disengage the lock);
- Pull handle out.

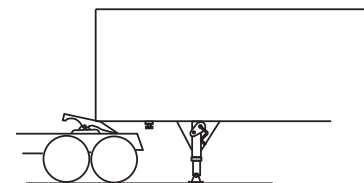


### 2.2 Trailer Coupling Procedure

- 1 Center the kingpin with the fifth wheel center.



- 2 Back the tractor close to the trailer and **STOP**.

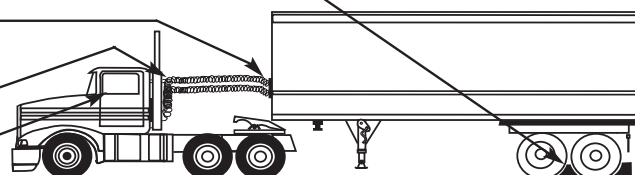


- 3 Chock trailer wheels

- 4 Connect brake and electrical lines

- 5 Support slack in lines to prevent interference

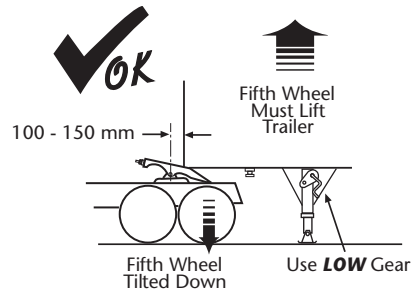
- 6 Set trailer brakes



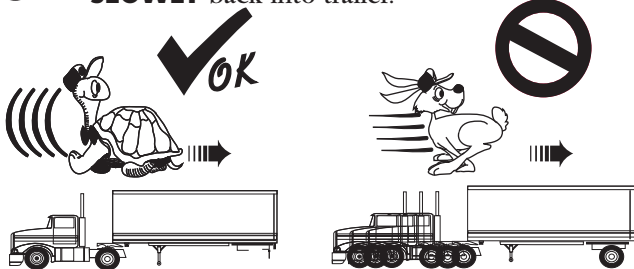
## 2. Operating Instructions (continued)

### 2.2 Trailer Coupling Procedures (continued)

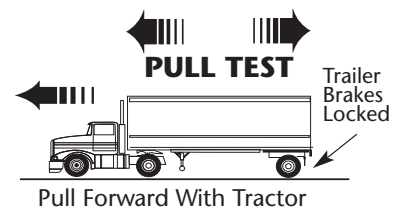
- 7** Adjust trailer height so the fifth wheel will lift the trailer. The Trailer should contact the fifth wheel 100 – 150 mm behind the fifth wheel bracket pin.



- 8** **SLOWLY** back into trailer.

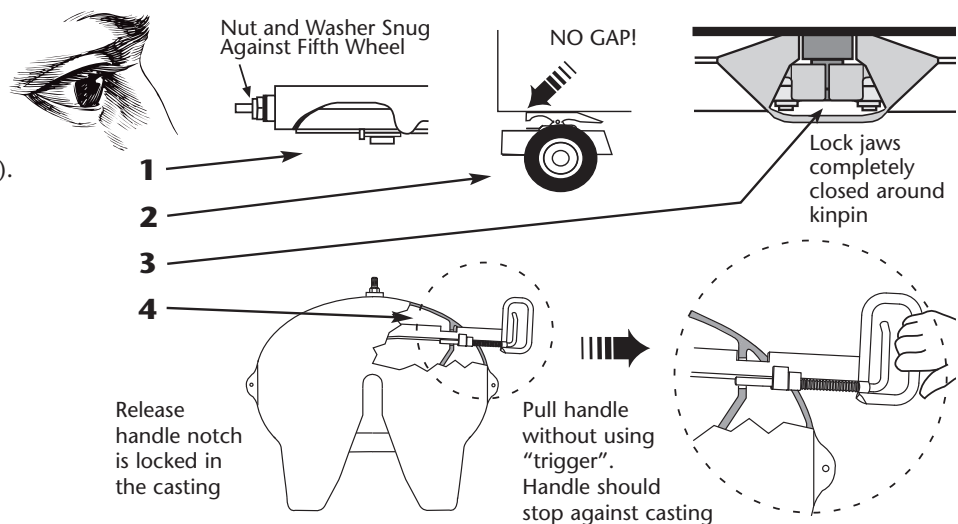


- 9** Do a pull test.



The coupling procedure is not complete without a visual inspection. You must get out of the tractor and verify that the fifth wheel is properly coupled to the kingpin as shown below.

- 10** Get out of the tractor. Visually check that the fifth wheel is locked (steps 1-4 at right).



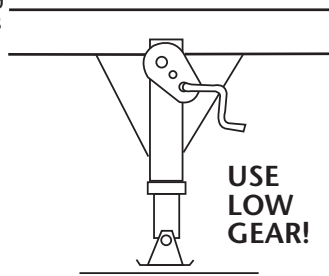
If you do not obtain a proper couple, repeat the coupling sequence.  
**DO NOT use any fifth wheel that fails to operate properly.**

## 2. Operating Instructions (continued)

### 2.2 Trailer Coupling Procedures (continued)

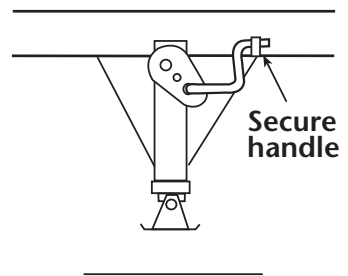
11

Retract landing gear until pads come off the ground.



12

Switch to **high gear**, fully retract, then secure crank handle.



13

Re-check brake lines and light cord. Remove chocks, continue with pre-trip inspection.

### 2.3 Trailer Uncoupling Procedure

1

Position tractor and trailer on firm, level ground — clear of obstacles and persons.

2

Set trailer brakes.

3

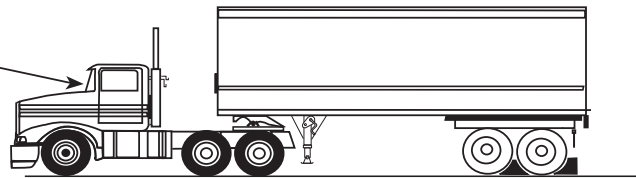
Slowly back tractor tightly against trailer.

4

Set tractor brakes.

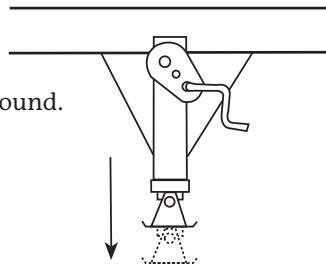
5

Chock trailer wheels.



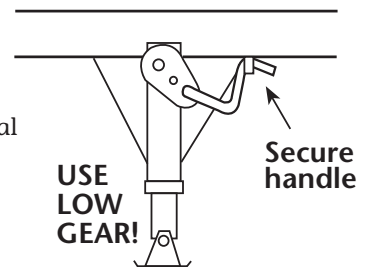
6

Extend landing gear until pads just touch the ground.



7

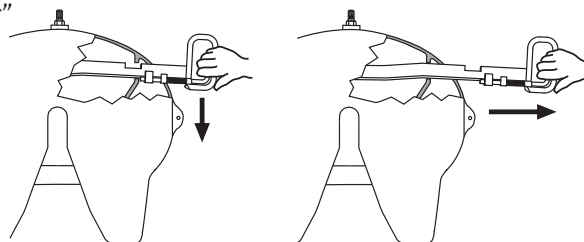
Switch to **low gear**, and crank an additional 4 – 8 turns.



8

Unlock fifth wheel with release handle.

- Grip handle
- Pull “trigger”
- Slide back/left (to disengage lock)
- Pull handle out



9

Disconnect brake and electrical lines.

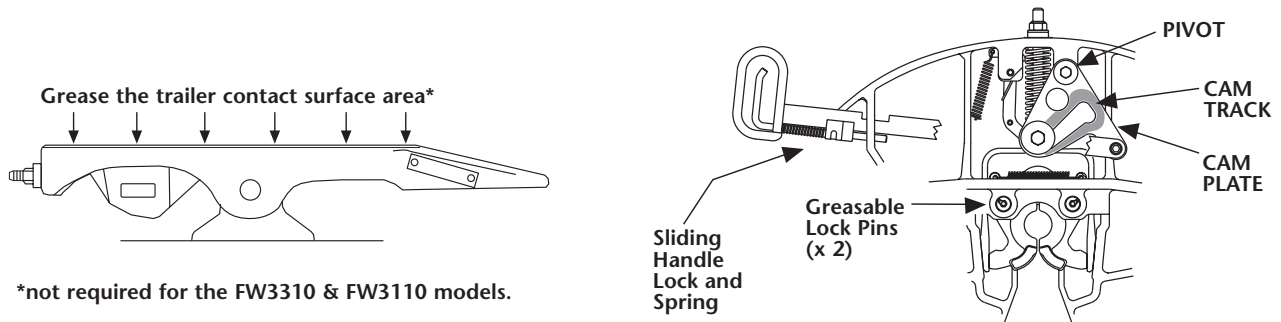
10

Release tractor brakes and slowly drive away from the trailer.

### 3. Maintenance Procedures

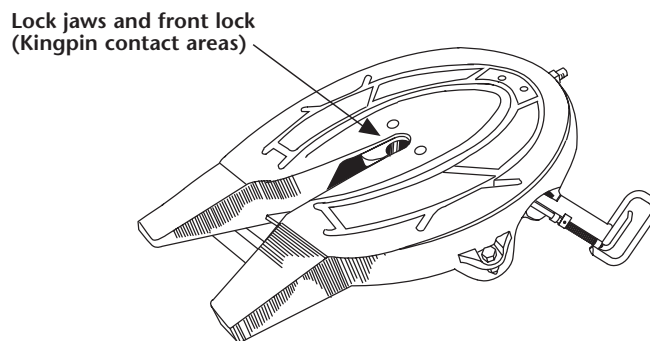
#### 3.1 As Needed Lubrication

**Note:** Maintain adequate lubrication on the following surfaces by inspecting and re-lubricating at regular intervals.



**Note:** Lubrication is not required on the FW3110 "No Lube" model.

### Use water-resistant lithium-base grease



**Note:** Lubrication is not required on the FW3110 "No Lube" model.

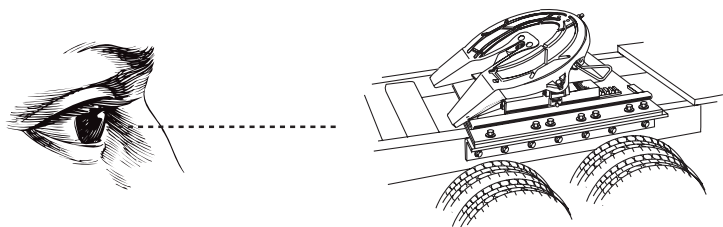
#### 3.2 Required Inspections and Adjustments

**NOTE:** Perform the following every three (3) months or 50,000 km, whichever comes first. Thoroughly clean all components before inspecting or adjusting.

##### 3.2.1 General Fifth Wheel Inspection

Inspect the fifth wheel mounting and fifth wheel assembly

- Tighten loose bolts and fasteners.
- Check bolt and fastener torque.
- Replace missing or damaged bolts
- Replace bent, worn, or broken parts.



### Use only genuine Holland parts kits

### 3. Maintenance Procedures (continued)

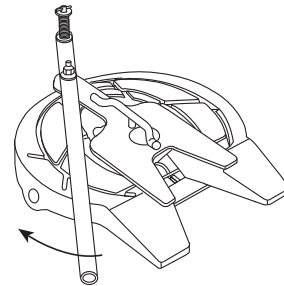
#### 3.2 Required Inspections and Adjustments (continued)

**NOTE:** Perform the following every three (3) months or 50,000 km, whichever comes first. Thoroughly steam clean all components before inspecting or adjusting.

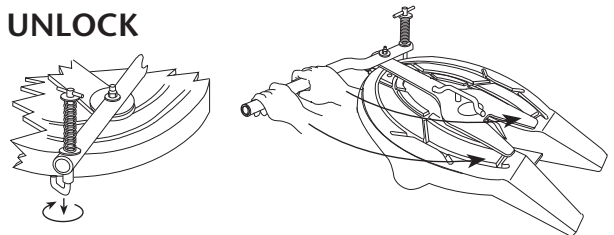
##### 3.2.2 Inspection of Locking Mechanism

- 1** Verify the proper operation of the fifth wheel by locking and unlocking the fifth wheel locks using a Holland Kingpin Lock Tester TF-TLN-1000 or TF-TLN-5001.
- 2** Set tool on the fifth wheel and rotate the handle.
- 3** Push down and rotate the “J” hook under the fifth wheel, then pull the handle back.

##### TO LOCK



##### TO UNLOCK



- 4** After each attempt, verify that the fifth wheel is properly locked, as shown below.

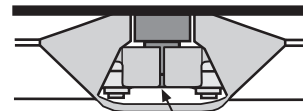


#### **WARNING**

If you do not obtain a proper couple, repeat the coupling sequence.

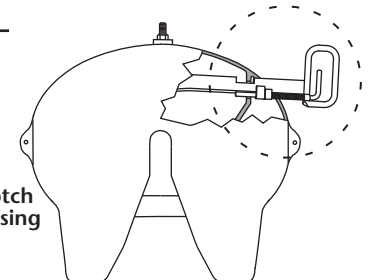
**DO NOT use any fifth wheel that fails to operate properly.**

Nut and bushing snug against the fifth wheel



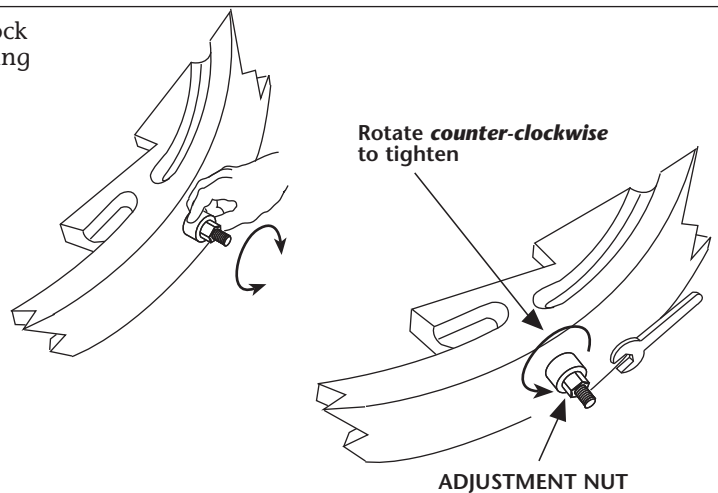
Locks completely closed around the kingpin

Release handle notch is locked in the casing



##### 3.2.3 Lock Adjustment Procedure

- 1** Close the locks using a Holland Lock Tester, and rotate the rubber bushing between the adjustment nut and the casting.
- 2** If the bushing is tight, rotate the adjustment nut counter-clockwise until the bushing is snug, but can still be rotated by hand.





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